WHAT IS CLAIMED IS:

1. A communication method comprising the steps of:

collectively transmitting from a first communication apparatus to a second communication apparatus a first operation request to be transmitted to the second communication apparatus and a second operation response to a second operation request received from the second communication apparatus, which first operation request and second operation response are combined in one batch; and

collectively transmitting from the second communication apparatus to the first communication apparatus the second operation request to be transmitted to the first communication apparatus and a first operation response to the first operation request received from the first communication apparatus, which second operation request and first operation response are combined in one batch.

2. The communication method as claimed in claim 1,

wherein:

the first operation request and the second operation request each correspond to a function call; and

the first operation response and the second operation response each correspond to an execution result of a function called by the function call.

3. The communication method as claimed in claim 1, wherein:

the second communication apparatus is arranged to transmit the second operation request and the first operation response as a communication request; and

the first communication apparatus is arranged to transmit the first operation request and the second operation response as a communication response to the communication request from the second communication apparatus.

4. The communication method as claimed in claim 3, wherein the second communication apparatus is arranged to

periodically transmit the communication request to the first communication apparatus.

5. A communication method comprising the steps of:

collectively transmitting from a first communication apparatus to a second communication apparatus a first SOAP request to be transmitted to the second communication apparatus and a second SOAP response to a second SOAP request received from the second communication apparatus, which first SOAP request and second SOAP response are described in one message; and

collectively transmitting from the second communication apparatus to the first communication apparatus the second SOAP request to be transmitted to the first communication apparatus and a first SOAP response to the first SOAP request received from the first communication apparatus, which second SOAP request and first SOAP response are described in one message.

6. The communication method as claimed in claim 5,

wherein:

the first SOAP request and the second SOAP request each describe a function call; and

the first SOAP response and the second SOAP response each describe an execution result of a function called by the function call.

7. The communication method as claimed in claim 5, wherein:

the second communication apparatus is arranged to transmit to the first communication apparatus an HTTP request that describes the second SOAP request and the first SOAP response to be transmitted to the first communication apparatus; and

the first communication apparatus is arranged to transmit to the second communication apparatus an HTTP response to the HTTP request that describes the first SOAP request and the second SOAP response to be transmitted to the second communication apparatus.

8. The communication method as claimed in claim 7, wherein the second communication apparatus is arranged to periodically transmit the HTTP request to the first communication apparatus.

9. A communication apparatus that is adapted to communicate with another communication apparatus as a communication counterpart, said communication apparatus comprising:

transmitting means for collectively transmitting to the communication counterpart a first operation request to be transmitted to the communication counterpart and a second operation response to a second operation request from the communication counterpart, which first operation request and second operation response are combined in one batch;

receiving means for collectively receiving from the communication counterpart a first operation response to the first operation request transmitted to the communication counterpart and the second operation request from the communication counterpart, which first operation response and second operation request are combined in one batch; and

means for executing an operation according to the second

operation request from the communication counterpart, and generating the second operation response to said second operation request as an execution result of said operation.

10. The communication apparatus as claimed in claim 9, wherein:

the first operation request and the second operation request each correspond to a function call; and

the first operation response and the second operation response each correspond to an execution result of a function called by the function call.

11. A communication apparatus that is adapted to communicate with another communication apparatus as a communication counterpart, said communication apparatus comprising:

first storage means for storing a second operation request from the communication counterpart and a second operation response to said second operation request;

second storage means for storing a first operation request to the communication counterpart and a first operation response to said first operation request;

request generating means for generating the first operation request to the communication counterpart and storing the generated first operation request in the second storage means;

response generating means for reading from the first storage means the second operation request from the communication counterpart, executing an operation according to said second operation request, generating the second operation response to said second operation request as an execution result of said operation, and storing in the first storage means the generated second operation response in association with the read second operation request;

gathering means for reading from the first storage means the second operation response to the second operation request from the communication counterpart, and reading from the second storage means the first operation request to the communication counterpart;

transmitting means for collectively transmitting to the communication counterpart the second operation response and the first operation request read by the gathering means in one batch;

receiving means for collectively receiving from the

communication counterpart the first operation response to the first operation request transmitted to the communication counterpart and the second operation request from the communication counterpart in one batch; and

distributing means for storing in the first storage means the second operation request from the communication counterpart received by the receiving means, and storing in the second storage means the first operation response to the first operation request transmitted to the communication counterpart in association with the first operation request transmitted to the communication counterpart.

12. The communication apparatus as claimed in claim 11, wherein:

the transmitting means is arranged to transmit to the communication counterpart the first operation request and the second operation response as SOAP messages; and

the receiving means is arranged to receive from the communication counterpart the second operation request and the first operation response as SOAP messages.

13. The communication apparatus as claimed in claim 11, further comprising:

means for assigning priority information to the second operation request stored in the first storage means and the first operation request stored in the second storage means; wherein

the response generating means is arranged to successively read from the first storage means the second operation request from the communication counterpart, generate the second operation response to said second operation request, and store the generated second operation response in the first storage means according to the priority information; and

the gathering means is arranged to successively read from the first storage means the second operation response to the second operation request from the communication counterpart according to the priority information, and successively read from the second storage means the first operation request to the communication counterpart according to the priority information.

14. A communication apparatus that is adapted to communicate with another communication apparatus as a communication counterpart, said communication apparatus comprising:

transmitting means for collectively transmitting to the communication counterpart a first SOAP request to be transmitted to the communication counterpart and a second SOAP response to a second SOAP request from the communication counterpart, which first SOAP request and second SOAP response are described in one message;

receiving means for collectively receiving from the communication counterpart a first SOAP response to the first SOAP request transmitted to the communication counterpart and the second SOAP request from the communication counterpart, which first SOAP response and second SOAP request are described in one message; and

means for executing an operation being requested by the second SOAP request from the communication counterpart and generating the second SOAP response describing an execution result of said second SOAP request.

15. The communication apparatus as claimed in claim 14,

wherein:

the first SOAP request and the second SOAP request each describe a function call; and

the first SOAP response and the second SOAP response each describe an execution result of a function called by the function call.

16. A communication apparatus that is adapted to communicate with another communication apparatus as a communication counterpart, said communication apparatus comprising:

first storage means for storing a second operation request from the communication counterpart and a second operation response to said second operation request;

second storage means for storing a first operation request to the communication counterpart and a first operation response to said first operation request;

request generating means for generating the first operation request to the communication counterpart and storing the generated first operation request in the second storage means;

response generating means for reading from the first

storage means the second operation request from the communication counterpart, executing an operation according to said second operation request, generating the second operation response to said second operation request as an execution result of said operation, and storing in the first storage means the generated second operation response in association with the read second operation request;

gathering means for reading from the first storage means the second operation response to the second operation request from the communication counterpart, and reading from the second storage means the first operation request to the communication counterpart;

transmitting means for collectively transmitting to the communication counterpart a second SOAP response describing a content of the second operation response read by the gathering means and a first SOAP request describing a content of the first operation request read by the gathering means, which second SOAP response and first SOAP request are described in one message;

receiving means for collectively receiving from the communication counterpart a first SOAP response describing the content of the first operation response to the first operation request transmitted to the communication counterpart and a second SOAP request describing the content of the second operation request that are described in one message; and

distributing means for storing in the first storage means the content of the second operation request from the communication counterpart described in the second SOAP request received by the receiving means, and storing in the second storage means the content of the first operation response to the first operation request transmitted to the communication counterpart described in the received first SOAP response in association with the first operation request transmitted to the communication counterpart.

16. The communication apparatus as claimed in claim 15, further comprising:

means for assigning priority information to the second operation request stored in the first storage means and the first operation request stored in the second storage means; wherein

the response generating means is arranged to successively read from the first storage means the second operation request from the communication counterpart, generate the second operation response to said second operation request, and store the generated second operation response in the first storage means according to the priority information; and

the gathering means is arranged to successively read from the first storage means the second operation response to the second operation request from the communication counterpart according to the priority information, and successively read from the second storage means the first operation request to the communication counterpart according to the priority information.

17. A communication system for a plurality of communication apparatuses that are adapted to communicate with each other as communication counterparts, said communication system comprising for each communication apparatus:

transmitting means for collectively transmitting to the communication counterpart a first operation request to be transmitted to the communication counterpart and a second operation response to a second operation request from the communication counterpart, which first operation request and second operation response are combined in one batch;

receiving means for collectively receiving from the communication counterpart a first operation response to the first operation request transmitted to the communication counterpart and the second operation request from the

communication counterpart, which first operation response and second operation request are combined in one batch; and

means for executing an operation according to the second operation request from the communication counterpart, and generating the second operation response to said second operation request as an execution result of said operation.

18. The communication system as claimed in claim 17, wherein:

the first operation request and the second operation request each correspond to a function call; and

the first operation response and the second operation response each correspond to an execution result of a function called by the function call.

19. A communication system for a plurality of communication apparatuses that are adapted to communicate with each other as communication counterparts, said communication system comprising for each communication apparatus:

first storage means for storing a second operation request from the communication counterpart and a second operation response to said second operation request;

second storage means for storing a first operation request to the communication counterpart and a first operation response to said first operation request;

request generating means for generating the first operation request to the communication counterpart and storing the generated first operation request in the second storage means;

response generating means for reading from the first storage means the second operation request from the communication counterpart, executing an operation according to said second operation request, generating the second operation response to said second operation request as an execution result of said operation, and storing in the first storage means the generated second operation response in association with the read second operation request;

gathering means for reading from the first storage means the second operation response to the second operation request from the communication counterpart, and reading from the second storage means the first operation request to the communication counterpart;

transmitting means for collectively transmitting to the communication counterpart the second operation response and the

first operation request read by the gathering means in one batch;

receiving means for collectively receiving from the communication counterpart the first operation response to the first operation request transmitted to the communication counterpart and the second operation request from the communication counterpart in one batch; and

distributing means for storing in the first storage means the second operation request from the communication counterpart received by the receiving means, and storing in the second storage means the first operation response to the first operation request transmitted to the communication counterpart in association with the first operation request transmitted to the communication counterpart.

20. The communication system as claimed in claim 19, wherein:

the transmitting means is arranged to transmit to the communication counterpart the first operation request and the second operation response as SOAP messages; and

the receiving means is arranged to receive from the communication counterpart the second operation request and the

first operation response as SOAP messages.

21. The communication system as claimed in claim 19, further comprising for each communication apparatus:

means for assigning priority information to the second operation request stored in the first storage means and the first operation request stored in the second storage means; wherein

the response generating means of each communication apparatus is arranged to successively read from the first storage means the second operation request from the communication counterpart, generate the second operation response to said second operation request, and store the generated second operation response in the first storage means according to the priority information;

the gathering means of each communication apparatus is arranged to successively read from the first storage means the second operation response to the second operation request from the communication counterpart according to the priority information, and successively read from the second storage means the first operation request to the communication counterpart according to the priority information.

22. A communication apparatus control method for controlling a communication apparatus that is adapted to communicate with another communication apparatus as a communication counterpart, said method controlling the communication apparatus to execute:

a transmitting process of collectively transmitting to the communication counterpart a first operation request to be transmitted to the communication counterpart and a second operation response to a second operation request from the communication counterpart, which first operation request and second operation response are combined in one batch;

a receiving process of collectively receiving from the communication counterpart a first operation response to the first operation request transmitted to the communication counterpart and the second operation request from the communication counterpart, which first operation response and second operation request are combined in one batch; and

a process of executing an operation according to the second operation request from the communication counterpart, and generating the second operation response to said second operation request as an execution result of said operation.

23. The communication apparatus control method as claimed in claim 22, wherein:

the first operation request and the second operation request each correspond to a function call; and

the first operation response and the second operation response each correspond to an execution result of a function called by the function call.

24. A communication apparatus control method for controlling a communication apparatus that is adapted to communicate with another communication apparatus as a communication counterpart, said method controlling the communication apparatus to execute:

a process of implementing a first storage area for storing a second operation request from the communication counterpart and a second operation response to said second operation request;

a process of implementing a second storage area for

storing a first operation request to the communication counterpart and a first operation response to said first operation request;

a request generating process of generating the first operation request to the communication counterpart and storing the generated first operation request in the second storage area;

a response generating process of reading from the first storage area the second operation request from the communication counterpart, executing an operation according to said second operation request, generating the second operation response to said second operation request as an execution result of said operation, and storing in the first storage area the generated second operation response in association with the read second operation request;

gathering process of reading from the first storage area the second operation response to the second operation request from the communication counterpart, and reading from the second storage area the first operation request to the communication counterpart;

a transmitting process of collectively transmitting to the communication counterpart the second operation response and the first operation request read by the gathering means in one batch;

a receiving process of collectively receiving from the

communication counterpart the first operation response to the first operation request transmitted to the communication counterpart and the second operation request from the communication counterpart in one batch; and

a distributing process of storing in the first storage area the second operation request from the communication counterpart received in the receiving process, and storing in the second storage area the first operation response to the first operation request transmitted to the communication counterpart in association with the first operation request transmitted to the communication counterpart.

25. The communication apparatus control method as claimed in claim 24, wherein:

in the transmitting process, the first operation request and the second operation response to be transmitted to the communication counterpart are transmitted as SOAP messages; and

in the receiving process, the second operation request and the first operation response to be received from the communication counterpart are transmitted as SOAP messages.

26. The communication apparatus control method as claimed in claim 24, wherein:

the communication apparatus is further controlled to execute a process of assigning priority information to the second operation request stored in the first storage area and the first operation request stored in the second storage area;

in the response generating process, the second operation request from the communication counterpart is successively read from the first storage area to generate the second operation response to said second operation request and to store the generated second operation response in the first storage area according to the priority information;

in the gathering process, the second operation response to the second operation request from the communication counterpart is successively read from the first storage area according to the priority information, and the first operation request to the communication counterpart is successively read from the second storage area according to the priority information.

27. A medium storing programs for controlling a computer

to function as a communication apparatus that is adapted to communicate with another communication apparatus as a communication counterpart, said medium containing programs for the computer to function as:

transmitting means for collectively transmitting to the communication counterpart a first operation request to be transmitted to the communication counterpart and a second operation response to a second operation request from the communication counterpart, which first operation request and second operation response are combined in one batch;

receiving means for collectively receiving from the communication counterpart a first operation response to the first operation request transmitted to the communication counterpart and the second operation request from the communication counterpart, which first operation response and second operation request are combined in one batch; and

means for executing an operation according to the second operation request from the communication counterpart, and generating the second operation response to said second operation request as an execution result of said operation.

28. The medium implementing the programs as claimed in

claim 27, wherein:

the first operation request and the second operation request each correspond to a function call; and

the first operation response and the second operation response each correspond to an execution result of a function called by the function call.

29. A medium storing a program for controlling a computer to function as a communication apparatus that is adapted to communicate with another communication apparatus as a communication counterpart, said medium containing programs for the computer to function as:

first storage means for storing a second operation request from the communication counterpart and a second operation response to said second operation request;

second storage means for storing a first operation request to the communication counterpart and a first operation response to said first operation request;

request generating means for generating the first operation request to the communication counterpart and storing the generated first operation request in the second storage means;

first operation request stored in the second storage means; wherein

the response generating means is arranged to successively read from the first storage means the second operation request from the communication counterpart, generate the second operation response to said second operation request, and store the generated second operation response in the first storage means according to the priority information; and

the gathering means is arranged to successively read from the first storage means the second operation response to the second operation request from the communication counterpart according to the priority information, and successively read from the second storage means the first operation request to the communication counterpart according to the priority information.

32. A communication client that is adapted to transmit a communication request to a communication server, and receive a communication response to said communication request from the communication server, wherein the communication request describes a client request corresponding to a client operation request to the communication server, and the communication

response describes a client operation response to the client request, said communication client comprising:

transmitting means for collectively transmitting to the communication server the client request and a server operation response to a server request corresponding to a server operation request from the communication server that are described together in the communication request;

receiving means for collectively receiving from the communication server the client operation response to the client request transmitted to the communication server and the server request that are described together in the communication response to the communication request; and

means for executing an operation according to the server request and generating the server operation response to the server request as an execution result of said operation.

33. The communication client as claimed in claim 32, wherein:

the client operation request and the server operation request each correspond to a function call; and

the client operation response and the client operation response each correspond to an execution result of a function

response to said server request as an execution result of said operation, and storing in the first storage means the generated server operation response in association with the read server request;

gathering means for reading the server operation response to the server request from the first storage means, and reading the client request from the second storage means;

transmitting means for collectively transmitting to the communication server the read server operation response and client request that are described together in the communication request;

receiving means for collectively receiving from the communication server the client operation response to the client request transmitted to the communication server and the server request that are described together in the communication response to the communication request; and

distributing means for storing in the first storage means the server request received by the receiving means, and storing in the second storage means the received client operation response to the client request transmitted to the communication server in association with the client request transmitted to the communication server.

35. The communication client as claimed in claim 34, wherein the transmitting means is arranged to periodically transmit the communication request to the communication server.

36. The communication client as claimed in claim 34, wherein:

the transmitting means is arranged to transmit to the communication server the client operation request and the server operation response as SOAP messages; and

the receiving means is arranged to receive from the communication server the server operation request and the client operation response as SOAP messages.

37. The communication client as claimed in claim 34, further comprising:

means for assigning priority information to the server request stored in the first storage means and the client request stored in the second storage means; wherein

the response generating means is arranged to successively read the server request from the first storage means, generate the server operation response to said server request, and store the generated server operation response in the first storage means according to the priority information; and

the gathering means is arranged to successively read the server operation response to the server request from the first storage means according to the priority information, and successively read the client request from the second storage means according to the priority information.

38. A communication client that is adapted to transmit an HTTP request to a communication server, and receive an HTTP response to said HTTP request from the communication server, wherein the HTTP request describes a client SOAP request to the communication server, and the HTTP response describes a client SOAP response to the client SOAP request, said communication client comprising:

transmitting means for collectively transmitting to the communication server the client SOAP request and a server SOAP response to a server SOAP request from the communication server that are described together in the HTTP request;

receiving means for collectively receiving from the communication server the client SOAP response to the client SOAP request transmitted to the communication server and the server SOAP request from the communication server that are described together in the HTTP response; and

means for executing an operation according to the server SOAP request received from the communication server and generating an execution result of said operation that is to be described in the server SOAP response to said server SOAP request.

39. The communication client as claimed in claim 38, wherein:

the client SOAP request and the server SOAP request each describe a function call; and

the client SOAP response and the server SOAP response each describe an execution result of a function called by the function call.

40. A communication client that is adapted to transmit an HTTP request to a communication server, and receive an HTTP response to said HTTP request from the communication server, wherein the HTTP request describes a client SOAP request to the communication server, and the HTTP response describes a client SOAP response to the client SOAP request, said communication client comprising:

first storage means for storing a server request corresponding to an server operation request from the communication server and a server operation response to said server request;

second storage means for storing a client request corresponding to a client operation request to the communication server and a client operation response to said client request;

request generating means for generating the client request and storing the generated client request in the second storage means;

response generating means for reading the server request from the first storage means, executing an operation according to said server request, generating the server operation response to said server request as an execution result of said operation, and storing in the first storage means the generated server operation response in association with the read server request;

gathering means for reading the server operation response to the server request from the first storage means, and reading the client request from the second storage means;

transmitting means for collectively transmitting to the communication server the server SOAP response describing a content of the server operation response read by the gathering means and the client SOAP request describing a content of the client request read by the gathering means that are described together in the HTTP request;

receiving means for collectively receiving from the communication server the client SOAP response to the client SOAP request transmitted to the communication server and the server SOAP request from the communication server that are described together in the HTTP response to the HTTP request; and

distributing means for storing in the first storage means the content of the server request described in the server SOAP request received by the receiving means, and storing in the second storage means the content of the client operation response to the client request transmitted to the communication server, which client operation response is described in the client SOAP response received by the receiving means, in association with the client request transmitted to the communication server.

41. The communication client as claimed in claim 40, wherein the transmitting means is arranged to periodically transmit the HTTP request to the communication server.

42. The communication client as claimed in claim 40, further comprising:

means for assigning priority information to the server request stored in the first storage means and the client request stored in the second storage means; wherein

the response generating means is arranged to successively read the server request from the first storage means, generate the server operation response to said server request, and store the generated server operation response in the first storage means according to the priority information; and

the gathering means is arranged to successively read the server operation response to the server request from the first storage means according to the priority information, and successively read the client request from the second storage means according to the priority information.

response generating means for reading from the first storage means the second operation request from the communication counterpart, executing an operation according to said second operation request, generating the second operation response to said second operation request as an execution result of said operation, and storing in the first storage means the generated second operation response in association with the read second operation request;

gathering means for reading from the first storage means the second operation response to the second operation request from the communication counterpart, and reading from the second storage means the first operation request to the communication counterpart;

transmitting means for collectively transmitting to the communication counterpart the second operation response and the first operation request read by the gathering means in one batch;

receiving means for collectively receiving from the communication counterpart the first operation response to the first operation request transmitted to the communication counterpart and the second operation request from the communication counterpart in one batch; and

distributing means for storing in the first storage means the second operation request from the communication counterpart received by the receiving means, and storing in the second

storage means the first operation response to the first operation request transmitted to the communication counterpart in association with the first operation request transmitted to the communication counterpart.

30. The medium storing the program as claimed in claim 29, wherein:

the transmitting means is arranged to transmit to the communication counterpart the first operation request and the second operation response as SOAP messages; and

the receiving means is arranged to receive from the communication counterpart the second operation request and the first operation response as SOAP messages.

31. The medium storing the programs as claimed in claim 29, further containing a program for the computer to function as:

means for assigning priority information to the second operation request stored in the first storage means and the

called by the function call.

34. A communication client that is adapted to transmit a communication request to a communication server, and receive a communication response to said communication request from the communication server, wherein the communication request describes a client request corresponding to a client operation request to the communication server, and the communication response describes a client operation response to the client request, said communication client comprising:

first storage means for storing a server request corresponding to a sever operation request from the communication server and a server operation response to said server request;

second storage means for storing the client request and a client operation response to said client request;

request generating means for generating the client request and storing the generated client request in the second storage means;

response generating means for reading the server request from the first storage means, executing an operation according to said server request, generating the server operation

43. A communication client control method for controlling a communication client that is adapted to transmit a communication request to a communication server, and receive a communication response to said communication request from the communication server, wherein the communication request describes a client request corresponding to an operation request to the communication server, and the communication response describes an operation response to the client request, said method controlling the communication client to execute:

a transmitting process of collectively transmitting to the communication server the client request and an operation response to a server request corresponding to an operation request from the communication server that are described together in the communication request;

a receiving process of collectively receiving from the communication server the operation response to the client request transmitted to the communication server and the server request that are described together in the communication response to the communication request; and

a process of executing an operation according to the server request and generating the operation response to the

server request as an execution result of said operation.

44. The communication client control method as claimed in claim 43, wherein

the operation request corresponds to a function call; and

the operation response corresponds to an execution result of a function called by the function call.

45. A communication client control method for controlling a communication client that is adapted to transmit a communication request to a communication server, and receive a communication response to said communication request from the communication server, wherein the communication request describes a client request corresponding to an operation request to the communication server, and the communication response describes an operation response to the client request, said method controlling the communication client to execute:

a process of implementing a first storage area for storing a server request corresponding to an operation request from the

communication server and an operation response to said server request;

a process of implementing a second storage area for storing the client request and an operation response to said client request;

a request generating process of generating the client request and storing the generated request in the second storage area;

a response generating process of reading the server request from the first storage area, executing an operation according to said server request, generating the operation response to said server request as an execution result of said operation, and storing in the first storage area the generated operation response in association with the read server request;

a gathering process of reading the operation response to the server request from the first storage area, and reading the client request from the second storage area;

a transmitting process of collectively transmitting to the communication server the read operation response and client request that are described together in the communication request;

a receiving process of collectively receiving from the communication server the operation response to the client request transmitted to the communication server and the server request that are described tog ther in the communication

response to the communication request; and

a distributing process of storing in the first storage area the server request received in the receiving process, and storing in the second storage area the received operation response to the client request transmitted to the communication server in association with the client request transmitted to the communication server.

46. The communication client control method as claimed in claim 45, wherein the communication client is controlled to periodically transmit the communication request to the communication server.

47. The communication client control method as claimed in claim 45, wherein:

in the transmitting process, the operation request and the operation response are transmitted to the communication server as respective SOAP messages; and

in the receiving process, the operation request and the

operation response are received from the communication server as respective SOAP messages.

48. The communication client control method as claimed in claim 45, further controlling the communication client to execute:

a process of assigning priority information to the server request stored in the first storage area and the client request stored in the second storage area; wherein

in the response generating process, the server request is successively read from the first storage area to generate the operation response to said server request and store the generated operation response in the first storage area according to the priority information; and

in the gathering process, the operation response to the server request is successively read from the first storage area according to the priority information, and the client request is successively read from the second storage area according to the priority information.

49. A medium storing programs for controlling a computer to function as a communication client that is adapted to transmit a communication request to a communication server, and receive a communication response to said communication request from the communication server, wherein the communication request describes a client request corresponding to an operation request to the communication server, and the communication response describes an operation response to the client request, said medium containing programs for the computer to function as:

transmitting means for collectively transmitting to the communication server the client request and an operation response to a server request corresponding to an operation request from the communication server that are described together in the communication request;

receiving means for collectively receiving from the communication server the operation response to the client request transmitted to the communication server and the server request that are described together in the communication response to the communication request; and

means for executing an operation according to the server request and generating the operation response to the server request as an execution result of said operation.

50. The medium storing the programs as claimed in claim 49, wherein:

the operation request corresponds to a function call; and

the operation response corresponds to an execution result of a function called by the function call.

51. A medium storing programs for controlling a computer to function as a communication client that is adapted to transmit a communication request to a communication server, and receive a communication response to said communication request from the communication server, wherein the communication request describes a client request corresponding to an operation request to the communication server, and the communication response describes an operation response to the client request, said medium containing programs for the computer to function as:

first storage means for storing a server request corresponding to an operation request from the communication server and an operation response to said server request;

second storage means for storing the client request and an operation response to said client request;

request generating means for generating the client request and storing the generated client request in the second storage means;

response generating means for reading the server request from the first storage means, executing an operation according to said server request, generating the operation response to said server request as an execution result of said operation, and storing in the first storage means the generated operation response in association with the read server request;

gathering means for reading the operation response to the server request from the first storage means, and reading the client request from the second storage means;

transmitting means for collectively transmitting to the communication server the read operation response and client request that are described together in the communication request;

receiving means for collectively receiving from the communication server the operation response to the client request transmitted to the communication server and the server request that are described together in the communication response to the communication request; and

distributing means for storing in the first storage means the server request receiv d by the receiving means, and storing

in the second storage means the received operation response to the client request transmitted to the communication server in association with the client request transmitted to the communication server.

52. The medium storing the programs as claimed in claim 51, wherein the transmitting means is arranged to periodically transmit the communication request to the communication server.

53. The medium storing the programs as claimed in claim 51, wherein:

the transmitting means is arranged to transmit to the communication server the operation request and the operation response as respective SOAP messages; and

the receiving means is arranged to receive from the communication server the operation request and the operation response as respective SOAP messages.

54. The medium storing the programs as claimed in claim 51, further containing a program for controlling the computer to function as:

means for assigning priority information to the server request stored in the first storage means and the client request stored in the second storage means; wherein

the response generating means is arranged to successively read the server request from the first storage means, generate the operation response to said server request, and store the generated operation response in the first storage means according to the priority information; and

the gathering means is arranged to successively read the operation response to the server request from the first storage means according to the priority information, and successively read the client request from the second storage means according to the priority information.

55. A communication server that is adapted to receive a communication request from a communication client, and transmit a communication response to said communication request to the

communication client, wherein the communication request describes a client request corresponding to an operation request from the communication client, and the communication response describes an operation response to the client request, said communication server comprising:

receiving means for collectively receiving from the communication client the client request and an operation response to a server request corresponding to an operation request transmitted to the communication client that are described together in the communication request;

transmitting means for collectively transmitting to the communication client the operation response to the client request received from the communication client and the server request that are described together in the communication response to the communication request; and

means for executing an operation according to the client request and generating the operation response to the client request as an execution result of said operation.

56. The communication server as claimed in claim 55, wherein:

the operation request corresponds to a function call; and

the operation response corresponds to an execution result of a function called by the function call.

57. A communication server that is adapted to receive a communication request from a communication client, and transmit a communication response to said communication request to the communication client, wherein the communication request describes a client request corresponding to an operation request from the communication client, and the communication response describes an operation response to the client request, said communication server comprising:

first storage means for storing the client request and an operation response to said client request;

second storage means for storing a server request corresponding to an operation request to the communication client and an operation response to said server request;

request generating means for generating the server request and storing the generated server request in the second storage means;

response generating means for reading the client request from the first storage means, executing an operation according to said client request, generating the operation response to

said client request as an execution result of said operation, and storing in the first storage means the generated operation response in association with the read client request;

receiving means for collectively receiving from the communication client the client request and the operation response to the server request transmitted to the communication client that are described together in the communication request;

distributing means for storing in the first storage means the client request received by the receiving means, and storing in the second storage means the received operation response to the server request transmitted to the communication client in association with the server request transmitted to the communication client;

gathering means for reading the operation response to the client request from the first storage means, and reading the server request from the second storage means; and

transmitting means for collectively transmitting to the communication client the read operation response and server request that are described together in the communication response.

58. The communication server as claimed in claim 57, wherein:

the receiving means is arranged to receive the operation response and the operation request from the communication client as respective SOAP messages; and

the transmitting means is arranged to transmit the operation response and the operation request to the communication client as respective SOAP messages.

59. The communication server as claimed in claim 57, further comprising:

means for assigning priority information to the client request stored in the first storage means and the server request stored in the second storage means; wherein

the response generating means is arranged to successively read the client request from the first storage means, generate the operation response to said client request, and store the generated operation response in the first storage means according to the priority information; and

the gathering means is arranged to successively read the operation response to the client request from the first storage means according to the priority information, and successively

read the server request from the second storage means according to the priority information.

60. A communication server that is adapted to receive an HTTP request from a communication client, and transmit an HTTP response to said communication request to the communication client, wherein the HTTP request describes a SOAP request from the communication client, and the HTTP response describes a SOAP response to said SOAP request, said communication server comprising:

receiving means for collectively receiving from the communication client the SOAP request and a SOAP response to a SOAP request transmitted to the communication client that are described together in the HTTP request;

transmitting means for collectively transmitting to the communication client the SOAP response to the SOAP request from the communication client and the SOAP request to the communication client that are described together in the HTTP response to the HTTP request; and

means for executing an operation according to the SOAP request received from the communication client and generating an execution result of said operation that is to be described

in the SOAP response to said SOAP request.

61. The communication server as claimed in claim 60, wherein:

the SOAP request describes a function call; and

the SOAP response describes an execution result of a function called by the function call.

62. A communication server that is adapted to receive an HTTP request from a communication client, and transmit an HTTP response to said communication request to the communication client, wherein the HTTP request describes a SOAP request from the communication client, and the HTTP response describes a SOAP response to said SOAP request, said communication server comprising:

first storage means for storing a client request corresponding to an operation request from the communication client and an operation response to said client command;

second storage means for storing a server request

corresponding to an operation request to the communication client and an operation response to said server request;

request generating means for generating the server request and storing the generated server request in the second storage means;

response generating means for reading the client request from the first storage means; executing an operation according to said client request, generating the operation response to said client request as an execution result of said operation, and storing in the first storage means the generated operation response in association with the read client request;

receiving means for collectively receiving from the communication client the SOAP request describing the client request and the SOAP response, corresponding to a response to the SOAP request transmitted to the communication client and describing the operation response to the server request transmitted to the communication client, that are described together in the HTTP request;

distributing means for storing in the first storage means a content of the client request described in the SOAP request received by the receiving means and storing in the second storage means a content of the operation response described in the SOPA response received by the receiving means in association with the server request transmitted to the communication client;

gathering means for reading the operation response to the client request from the first storage means, and reading the server request from the second storage means; and

transmitting means for collectively transmitting to the communication client the SOAP response describing the content of the operation response read by the gathering means and the SOAP request describing the content of the operation request read by the gathering means that are described together in the HTTP response to the HTTP request.

63. The communication server as claimed in claim 62, further comprising:

means for assigning priority information to the client request stored in the first storage means and the server request stored in the second storage means; wherein

the response generating means is arranged to successively read the client request from the first storage means, generate the operation response to said client request, and store the generated operation response in the first storage means according to the priority information; and

the gathering means is arranged to successively read the operation response to the client request from the first storag

means according to the priority information, and successively read the server request from the second storage means according to the priority information.

64. A communication server control method for controlling a communication server that is adapted to receive a communication request from a communication client, and transmit a communication response to said communication request to the communication client, wherein the communication request describes a client request corresponding to an operation request from the communication client, and the communication response describes an operation response to said client request, said method controlling the communication server to execute:

a receiving process of collectively receiving from the communication client the client request and an operation response to a server request corresponding to an operation request transmitted to the communication client that are described together in the communication request;

a transmitting process of collectively transmitting to the communication client the operation response to the client request received from the communication client and the server request that are described together in the communication

response to the communication request; and

a process of executing an operation according to the client request, and generating the operation response to the client request as an execution result of said operation.

65. The communication server controlling method as claimed in claim 64, wherein:

the operation request corresponds to a function call; and

the operation response corresponds to an execution result of a function called by the function call.

66. A communication server control method for controlling a communication server that is adapted to receive a communication request from a communication client, and transmit a communication response to said communication request to the communication client, wherein the communication request describes a client request corresponding to an operation request from the communication client, and the communication response describes an operation response to said client request,

said method controlling the communication server to execute:

a process of implementing a first storage area for storing the client request and an operation response to said client request;

a process of implementing a second storage area for storing a server request corresponding to an operation request to the communication client and an operation response to said server request;

a request generating process of generating the server request and storing the generated server request in the second storage area;

a response generating process of reading the client request from the first storage area, executing an operation according to said client request, generating the operation response to said client request as an execution result of said operation, and storing in the first storage area the generated operation response in association with the read client request;

a receiving process of collectively receiving from the communication client the client request and the operation response to the server request transmitted to the communication client that are described together in the communication request;

a distributing process of storing in the first storage area the client request received in the receiving process, and storing in the second storage area the received operation

response to the server request transmitted to the communication client in association with the server request transmitted to the communication client;

a gathering process of reading the operation response to the client request from the first storage area, and reading the server request from the second storage area; and

a transmitting process of collectively transmitting to the communication client the read operation response and server request that are described together in the communication response.

67. The communication server controlling method as claimed in claim 66, wherein:

in the receiving process, the operation response and the operation request are received from the communication client as respective SOAP messages; and

in the transmitting process, the operation response and the operation request are transmitted to the communication client as respective SOAP messages.

68. The communication server controlling method as claimed in claim 66, further controlling the communication server to execute:

a process of assigning priority information to the client request stored in the first storage area and the server request stored in the second storage area; wherein

in the response generating process, the client request is successively read from the first storage area to generate the operation response to said client request and store the generated operation response in the first storage area according to the priority information; and

in the gathering process the operation response to the client request is successively read from the first storage means according to the priority information, and the server request is successively read from the second storage means according to the priority information.

69. A medium storing programs for controlling a computer to function as a communication server that is adapted to receive a communication request from a communication client, and transmit a communication response to said communication

request to the communication client, wherein the communication request describes a client request corresponding to an operation request from the communication client, and the communication response describes an operation response to the client request, said medium containing programs for the computer to function as:

receiving means for collectively receiving from the communication client the client request and an operation response to a server request corresponding to an operation request transmitted to the communication client that are described together in the communication request;

transmitting means for collectively transmitting to the communication client the operation response to the client request received from the communication client and the server request that are described together in the communication response to the communication request; and

means for executing an operation according to the client request and generating the operation response to the client request as an execution result of said operation.

70. The medium storing the programs as claimed in claim 69, wherein:

the operation request corresponds to a function call; and

the operation response corresponds to an execution result of a function called by the function call.

71. A medium storing programs for controlling a computer to function as a communication server that is adapted to receive a communication request from a communication client, and transmit a communication response to said communication request to the communication client, wherein the communication request describes a client request corresponding to an operation request from the communication client, and the communication response describes an operation response to the client request, said medium containing programs for the computer to function as:

first storage means for storing the client request and an operation response to said client request;

second storage means for storing a server request corresponding to an operation request to the communication client and an operation response to said server request;

request generating means for generating the server request and storing the generated server request in the second storage means;

response generating means for reading the client request from the first storage means, executing an operation according to said client request, generating the operation response to said client request as an execution result of said operation, and storing in the first storage means the generated operation response in association with the read client request;

receiving means for collectively receiving from the communication client the client request and the operation response to the server request transmitted to the communication client that are described together in the communication request;

distributing means for storing in the first storage means the client request received by the receiving means, and storing in the second storage means the received operation response to the server request transmitted to the communication client in association with the server request transmitted to the communication client;

gathering means for reading the operation response to the client request from the first storage means, and reading the server request from the second storage means; and

transmitting means for collectively transmitting to the communication client the read operation response and server request that are described together in the communication response.

72. The medium storing the programs as claimed in claim 71, wherein:

the receiving means is arranged to receive the operation response and the operation request from the communication client as respective SOAP messages; and

the transmitting means is arranged to transmit the operation response and the operation request to the communication client as respective SOAP messages.

73. The medium storing the programs as claimed in claim 71, further containing a program for controlling the computer to function as:

means for assigning priority information to the client request stored in the first storage means and the server request stored in the second storage means; wherein

the response generating means is arranged to successively read the client request from the first storage means, generate the operation response to said client request, and store the generated operation response in the first storage means

according to the priority information; and

the gathering means is arranged to successively read the operation response to the client request from the first storage means according to the priority information, and successively read the server request from the second storage means according to the priority information.

74. A communication system for a communication client and a communication server, wherein the communication client transmits a communication request to the communication server and receives a communication response to said communication request from the communication server, said communication request describing a client request corresponding to a client operation request to the communication server, said communication response describing a client operation response to said client request, the communication system comprising:

client transmitting means for collectively transmitting to the communication server the client request and a server operation response to a server request corresponding to a server operation request from the communication server that are described together in the communication request;

client receiving means for collectively receiving from the

communication server the client operation response to the client request transmitted to the communication server and the server request that are described together in the communication response to the communication request; and

client executing means for executing an operation according to the server request and generating the server operation response to the server request as an execution result of said operation;

server receiving means for collectively receiving from the communication client the client request and the server operation response to the server request transmitted to the communication client that are described together in the communication request;

server transmitting means for collectively transmitting to the communication client the client operation response to the client request received from the communication client and the server request that are described together in the communication response to the communication request; and

server executing means for executing an operation according to the client request and generating the client operation response to the client request as an execution result of said operation.

75. The communication system as claimed in claim 74, wherein:

the client operation request and the server operation request each correspond to a function call; and

the client operation response and the server operation response each correspond to an execution result of a function called by the function call.

76. A communication system for a communication client and a communication server, wherein the communication client transmits a communication request to the communication server and receives a communication response to said communication request from the communication server, said communication request describing a client request corresponding to a client operation request to the communication server, said communication response describing a client operation response to said client request, said communication system comprising:

client first storage means for storing a server request corresponding to a server operation request from the communication server and a server operation response to said server request;

client second storage means for storing the client request and the client operation response to said client request;

client request generating means for generating the client request and storing the generated client request in the second storage means;

client response generating means for reading the server request from the first storage means, executing an operation according to said server request, generating the sever operation response to said server request as an execution result of said operation, and storing in the client first storage means the generated server operation response in association with the read server request;

client gathering means for reading the server operation response to the server request from the client first storage means, and reading the client request from the client second storage means;

client transmitting means for collectively transmitting to the communication server the read server operation response and client request that are described together in the communication request;

client receiving means for collectively receiving from the communication server the client operation response to the client request transmitted to the communication server and the server request that are described together in the communication response to the communication request; and

client distributing means for storing in the client first storage means the server request received by the receiving means, and storing in the client second storage means the received client operation response to the client request transmitted to the communication server in association with the client request transmitted to the communication server;

server first storage means for storing the client request and the client operation response to said client request;

server second storage means for storing the server request and the server operation response to said server request;

server request generating means for generating the server request and storing the generated server request in the server second storage means;

server response generating means for reading the client request from the server first storage means, executing an operation according to said client request, generating the client operation response to said client request as an execution result of said operation, and storing in the server first storage means the generated client operation response in association with the read client request;

server receiving means for collectively receiving from the communication client the client request and the server operation response to the server request transmitted to the communication client that are described together in the communication request;

server distributing means for storing in the server first storage means the client request received by the receiving means, and storing in the server second storage means the received server operation response to the server request transmitted to the communication client in association with the server request transmitted to the communication client;

server gathering means for reading the client operation response to the client request from the server first storage means, and reading the server request from the server second storage means; and

transmitting means for collectively transmitting to the communication client the read client operation response and server request that are described together in the communication response to the communication request received by the server receiving means.

77. The communication system as claimed in claim 76, wherein the client transmitting means is arranged to periodically transmit the communication request to the communication server.

78. The communication system as claimed in claim 76, wherein:

the client transmitting means is arranged to transmit the client operation request and the server operation response to the communication server as SOAP messages; and

the client receiving means is arranged to receive the server operation request and the client operation response from the communication server as SOAP messages;

the server receiving means is arranged to receive the server operation response and the client operation request from the communication client as SOAP messages; and

the server transmitting means is arranged to transmit the client operation response and the server operation request to the communication client as SOAP messages.

79. The communication system as claimed in claim 76, further comprising:

client prioritizing means for assigning priority information to the server request stored in the first storage means and the client request stored in the second storage

means; wherein

the client response generating means is arranged to successively read the server request from the first storage means, generate the server operation response to said server request, and store the generated server operation response in the client first storage means according to the priority information;

the client gathering means is arranged to successively read the server operation response to the server request from the client first storage means according to the priority information, and successively read the client request from the client second storage means according to the priority information;

said communication system further comprising:

server prioritizing means for assigning priority information to the client request stored in the server first storage means and the server request stored in the server second storage means; wherein

the server response generating means is arranged to successively read the client request from the first storage means, generate the client operation response to said client request, and store the generated client operation response in the server first storage means according to the priority information; and

the server gathering means is arranged to successively

read the client operation response to the client request from the server first storage means according to the priority information, and successively read the server request from the server second storage means according to the priority information.

80. A communication system for a communication client and a communication server, wherein the communication client transmits an HTTP request to the communication server and receives an HTTP response to the HTTP request from the communication server, said HTTP request describing a client SOAP request to the communication server, said HTTP response describing a client SOAP response to said client SOAP request, said communication system comprising:

client transmitting means for collectively transmitting to the communication server the client SOAP request to the communication server and a server SOAP response to a server SOAP request from the communication server that are described together in the HTTP request;

client receiving means for collectively receiving from the communication server the client SOAP response to the client SOAP request transmitted to the communication server and the

server SOAP request from the communication server that are described together in the HTTP response to the HTTP request; and

client executing means for executing an operation according to the server SOAP request received from the communication server and generating an execution result of said operation that is to be described in the server SOAP response to said server SOAP request;

server receiving means for collectively receiving from the communication client the client SOAP request from the communication client and the server SOAP response to the server SOAP request transmitted to the communication client that are described together in the HTTP request;

server transmitting means for collectively transmitting to the communication client the client SOAP response to the client SOAP request from the communication client and the server SOAP request to the communication client that are described together in the HTTP response to the HTTP request; and

server executing means for executing an operation according to the client SOAP request received from the communication client and generating an execution result of said operation that is to be described in the client SOAP response to said client SOAP request.

81. The communication system as claimed in claim 80, wherein:

the client SOAP request and the server SOAP request each describe a function call; and

the client SOAP response and the server SOAP response each describe an execution result of a function called by the function call.

82. A communication system for a communication client and a communication server, wherein the communication client transmits an HTTP request to the communication server and receives an HTTP response to the HTTP request from the communication server, said HTTP request describing a client SOAP request to the communication server, said HTTP response describing a client SOAP response to said client SOAP request, said communication system comprising:

client first storage means for storing a server request corresponding to a server operation request from the communication server and an server operation response to said server request;

client second storage means for storing a client request corresponding to a client operation request to the communication server and a client operation response to said client request;

client request generating means for generating the client request and storing the generated client request in the client second storage means;

client response generating means for reading the server request from the client first storage means, executing an operation according to said server request, generating the server operation response to said server request as an execution result of said operation, and storing in the client first storage means the generated server operation response in association with the read server request;

client gathering means for reading the server operation response to the server request from the client first storage means, and reading the client request from the client second storage means;

client transmitting means for collectively transmitting to the communication server the server SOAP response describing a content of the server operation response read by the client gathering means and the client SOAP request describing a content of the client request read by the client gathering means that are described together in the HTTP request;

client receiving means for collectively receiving from the

communication server the client SOAP response to the client SOAP request transmitted to the communication server and the server SOAP request from the communication server that are described together in the HTTP response to the HTTP request; and

client distributing means for storing in the client first storage means the content of the server request described in the server SOAP request received by the client receiving means, and storing in the client second storage means the content of the client operation response to the client request transmitted to the communication server, which client operation response is described in the client SOAP response received by the client receiving means, in association with the client request transmitted to the communication server;

server first storage means for storing the client request and the client operation response to said client command;

server second storage means for storing the server request and the server operation response to said server request;

server request generating means for generating the server request and storing the generated server request in the server second storage means;

server response generating means for reading the client request from the server first storage means, executing an operation according to said client request, generating the client operation response to said client request as an

execution result of said operation, and storing in the server first storage means the generated client operation response in association with the read client request;

server receiving means for collectively receiving from the communication client the client SOAP request describing the client request and the server SOAP response to the server SOAP request describing the server operation response to the server request transmitted to the communication client, that are described together in the HTTP request;

server distributing means for storing in the server first storage means a content of the client request described in the client SOAP request received by the server receiving means and storing in the server second storage means a content of the server operation response described in the server SOAP response received by the server receiving means in association with the server request transmitted to the communication client;

server gathering means for reading the client operation response to the client request from the server first storage means, and reading the server request from the server second storage means; and

server transmitting means for collectively transmitting to the communication client the client SOAP response describing the content of the client operation response read by the server gathering means and the server SOAP request describing the content of the server operation request read by the server

gathering means that are described together in the HTTP response to the HTTP request.

83. The communication system as claimed in claim 82, wherein the client transmitting means is arranged to periodically transmit the HTTP request to the communication server.

84. The communication system as claimed in claim 82, further comprising:

client prioritizing means for assigning priority information to the server request stored in the client first storage means and the client request stored in the client second storage means; wherein

the client response generating means is arranged to successively read the server request from the client first storage means, generate the server operation response to said server request, and store the generated server operation response in the client first storage means according to the

priority information;

the client gathering means is arranged to successively read the server operation response to the server request from the client first storage means according to the priority information, and successively read the client request from the client second storage means according to the priority information;

said communication system further comprising:

server prioritizing means for assigning priority information to the client request stored in the server first storage means and the server request stored in the server second storage means; wherein

the server response generating means is arranged to successively read the client request from the server first storage means, generate the client operation response to said client request, and store the generated client operation response in the server first storage means according to the priority information; and

the server gathering means is arranged to successively read the client operation response to the client request from the server first storage means according to the priority information, and successively read the server request from the server second storage means according to the priority information.

85. A communication system control method for controlling a communication system comprising a communication client and a communication server, wherein the communication client transmits a communication request to the communication server and receives a communication response to said communication request from the communication server, said communication request describing a client request corresponding to a client operation request to the communication server, said communication response describing a client operation response to said client request from the communication server,

said method controlling the communication client to execute:

a transmitting process of collectively transmitting to the communication server the client request and an server operation response to a server request corresponding to a server operation request from the communication server that are described together in the communication request;

a receiving process of collectively receiving from the communication server the client operation response to the client request transmitted to the communication server and the server request that are described together in the communication response to the communication request; and

a process of executing an operation according to the server request and generating the server operation response to the server request as an execution result of said operation; and

said method controlling the communication server to execute:

a receiving process of collectively receiving from the communication client the client request and the server operation response to the server request transmitted to the communication client that are described together in the communication request;

a transmitting process of collectively transmitting to the communication client the client operation response to the client request received from the communication client and the server request that are described together in the communication response to the communication request; and

a process of executing an operation according to the client request, and generating the client operation response to the client request as an execution result of said operation.

86. The communication system control method as claimed in claim 85, wherein:

the client operation request and the server operation request each correspond to a function call; and

the client operation response and the server operation response each correspond to an execution result of a function called by the function call.

87. A communication system control method for controlling a communication system comprising a communication client and a communication server, wherein the communication client transmits a communication request to the communication server and receives a communication response to said communication request from the communication server, said communication request describing a client request corresponding to a client operation request to the communication server, said communication response describing a client operation response to said client request from the communication server,

said method controlling the communication client to execute:

a process of implementing a first storage area for storing a server request corresponding to a server operation request from the communication server and a server operation response to said server request;

a process of implementing a second storage area for storing the client request and the client operation response to said client request;

a request generating process of generating the client request and storing the generated client request in the second storage area;

a response generating process of reading the server request from the first storage area, executing an operation according to said server request, generating the server operation response to said server request as an execution result of said operation, and storing in the first storage area the generated server operation response in association with the read server request;

a gathering process of reading the server operation response to the server request from the first storage area, and reading the client request from the second storage area;

a transmitting process of collectively transmitting to the communication server the read server operation response and client request that are described together in the communication request;

a receiving process of collectively receiving from the communication server the client operation response to the client request transmitted to the communication server and the server request that are described together in the communication response to the communication request; and

a distributing process of storing in the first storage area the server request received in the receiving process, and storing in the second storage area the received client operation response to the client request transmitted to the communication server in association with the client request transmitted to the communication server;

said method controlling the communication server to execute:

a process of implementing a first storage area for storing the client request and the client operation response to said client request;

a process of implementing a second storage area for storing the server request and the server operation response to said server request;

a request generating process of generating the server request and storing the generated server request in the second storage area;

a response generating process of reading the client request from the first storage area of said communication server, executing an operation according to said client request, generating the client operation response to said client request as an execution result of said operation, and storing in the first storage area the generated client operation response in association with the read client request;

a receiving process of collectively receiving from the

communication client the client request and the server operation response to the server request transmitted to the communication client that are described together in the communication request;

a distributing process of storing in the first storage area the client request received in the receiving process, and storing in the second storage area the received server operation response to the server request transmitted to the communication client in association with the server request transmitted to the communication client;

a gathering process of reading the client operation response to the client request from the first storage area of said communication server, and reading the server request from the second storage area of said communication server; and

a transmitting process of collectively transmitting to the communication client the read client operation response and server request that are described together in the communication response to the communication request received in the receiving process of said communication server.

88. The communication system control method as claimed in claim 87, wherein the communication client is controlled to

periodically transmit the communication request to the communication server.

89. The communication system control method as claimed in claim 87, wherein:

the communication client is controlled to:

transmit to the communication server the client operation request and the server operation response as SOAP messages in the transmitting process; and

receive from the communication server the server operation request and the client operation response as SOAP messages in the receiving process; and

the communication server is controlled to:

receive the server operation response and the client operation request from the communication client as SOAP messages in the receiving process; and

transmit the client operation response and the server operation request to the communication client as SOAP messages in the transmitting process.

90. The communication system control method as claimed in claim 87, wherein

the communication client is further controlled to:

execute a process of assigning priority information to the server request stored in the first storage area and the client request stored in the second storage area;

in the response generating process, successively read the server request from the first storage area, generate the server operation response to said server request, and store the generated server operation response in the first storage area according to the priority information;

in the gathering process, successively read the server operation response to the server request from the first storage area according to the priority information, and successively read the client request from the second storage area according to the priority information; and

the communication server is controlled to:

execute a process of assigning priority information to the client request stored in the first storage area and the server request stored in the second storage area;

in the response generating process, successively read the client request from the first storage area, generate the client operation response to said client request, and store the generated client operation response in the first storage area

according to the priority information; and

in the gathering process, successively read the client operation response to the client request from the first storage area according to the priority information, and successively read the server request from the second storage area according to the priority information.